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A New Genus of Feather-Wing Beetles From Termite Nests in Bolivia
(Coleoptera: Ptiliidae)

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Three genera of feather-wing beetles have been previously recorded from termite nests (Dybas, 1955), all from the Neotropical region. The new genus reported here belongs to the pterycine group, as do the other termitophilous genera. I am indebted to Dr. J. F. Gates Clarke, of the United States National Museum, for the opportunity to study the material on which the new genus is based, and to Dr. Alfred E. Emerson, of the University of Chicago, for identifying the host termites.

Xenopteryx, new genus. Figures 17, 18.

Type of genus.—*Xenopteryx setosus,* new species.

A genus of unusually large Ptiliidae related to *Termitopteryx* Dybas, 1955, but differing in the following characters: Form more convex; hypomera of pronotum concave near anterior angles (slightly convex in *Termitopteryx*); legs much shorter and stouter (hind femora 2 times as long as wide; 3 times as long in *Termitopteryx*); femora with a smaller inner as well as outer lamina distally; long setae of basal tarsal segments fine and not spatulate terminally; elytra subtruncate, not produced; metasternum shorter (4 times as broad as long; 3 times as broad in *Termitopteryx*).

Size relatively large (greater than 1 mm. in length); form as in *Termitopteryx* but more convex. Mentum trapezoidal, longer than broad, narrowed anteriorly. Antennae 11-segmented (fig. 18, *a*); segments 1–2 large; segments 3–8 smaller, cylindrical, each with a subapical whorl of about 5–6 setae; segments 5–8 with an additional sub-basal whorl (in *Termitopteryx*, segments 5–7 lack a basal whorl and segment 8 has only 1 sub-basal seta); segments 9–11 enlarged.

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Pronotum broad, convex, hind angles prolonged, posterior margin slightly bisinuate in front of the scutellum, which is broadly triangular; hypomera concave near anterior angles, very acutely inflexed posteriorly. Elytra subtruncate, exposing several dorsal segments of the abdomen.

Prosternum shorter in front of coxae than the coxal diameter.

Mesopleural-metasternal suture (lateral to mesocoxae) more suddenly bent anteriorly and with a less pronounced internal skeletal fold than in *Termitopteryx*. Metasternum short, nearly 4 times as broad as long (3 times as broad in *Termitopteryx*). Metendosternite as in *Termitopteryx*.

Abdomen with 10 dorsal segments, tergites IX and X separated by a distinct suture; tergite X not dentate. As in *Termitopteryx*, tergites III–VIII each have a paratergite and a spiracle on each side; tergite VII has the characteristic micropectinate posterior margin; between VIII and IX is a transverse row of linear pores and, at each side, an internal sclerotized "gland" composed of a cluster of 4–5 tear-shaped chambers. In the male, sternite IX is small, concealed, and anteriorly prolonged into a spur at middle.

Legs moderately short (fig. 18, *b–d*); hind coxae broadly laminate. Femora of all legs with a smaller inner lamina as well as the larger outer lamina distally. Tarsi long, slender (especially hind tarsi); basal setae (2 pairs) of each tarsus fine, not spatulate terminally as in *Termitopteryx*.

Remarks.—The new genus belongs to the pterycine group and is closely related to *Termitopteryx* Dybas, described from nests of termites of the family Kalotermitidae in Brazil. The termite host of *Termitopteryx productus* Dybas, listed as *Rugitermes arthuri-muelleri* von Rosen in Dybas (1955), has been transferred to the closely related genus *Neotermes* by Krishna (1961).

Xenopteryx setosus, new species. Figures 17, 18.

Color yellow brown, antennae and mouth parts paler; eyes dark gray; wings showing through elytra as dark vittae; tibiae markedly darker than femora. Surface shining, covered with golden setae which are fine on the head and anterior parts of both pronotum and elytra, and are longer and stouter laterally and posteriorly. Setae of scutellum minute.

Antennae reaching beyond middle of pronotum, their form and chaetotaxy as in figure 18, *a;* segment 1 longitudinally striolate; terminal segment somewhat compressed.

Wings present, fully developed. Elytra subtruncate, microscopically serrulate at apices.

Head beneath with fine setae medial to each eye, and with a pair of prominent, erect setae and several fine ones just posterior to the mentum.

Prosternum with several fine setae at anterior margin. Mesosternum between coxae with several short, stout setae. Metasternum clothed with fine setae which are longer posteriorly and laterally.

Legs with form and chaetotaxy as in figure 18, *b–d*, the finer setae being indicated only approximately; all setae pale yellow in color.

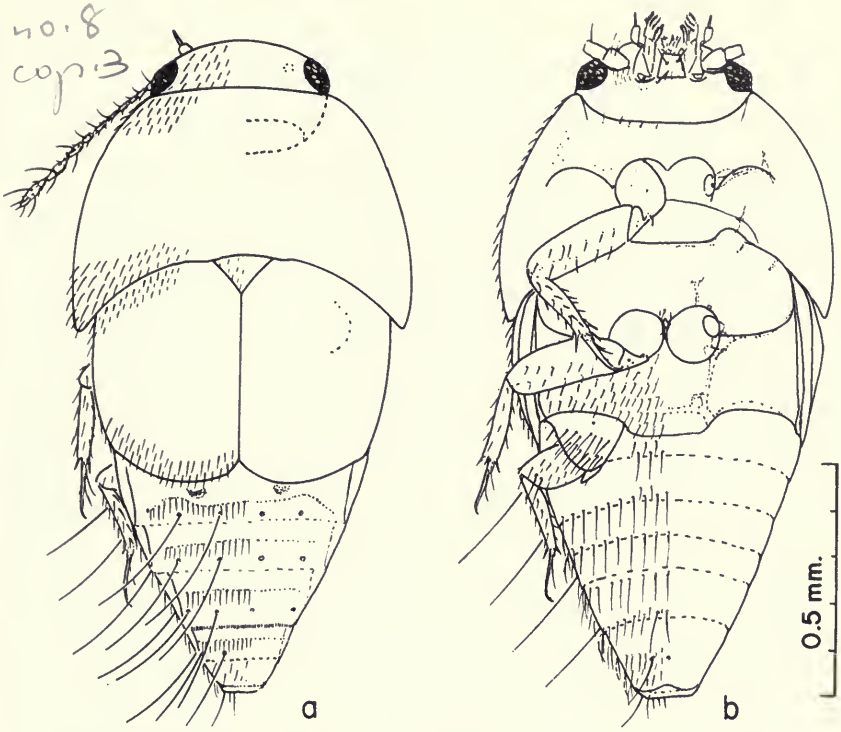

FIG. 17. *Xenopteryx setosus*, new gen. and sp. *a*, Dorsal view. *b*, Ventral view (male). Composite drawings.

Abdominal tergites V (the first exposed segment in dry specimens) to VIII each with a transverse row of recumbent, closely set setae and, posterior to these, 4–6 very long, erect, prominent setae that are about as long as the width of each elytron. Each paratergite with an erect seta of similar length. Tergite VII with the characteristic micropectinate posterior margin. Tergite IX with short, scattered setae; separated from the small terminal tergite X by a fine but distinct suture.

Sternite III (first visible ventral segment) with a transverse row of a few setae at middle between hind coxae and, in front of this row, a few additional setae; sternites IV–VII each with a transverse row of long setae (about as long as each segment) in front of hind margin; sternite VIII irregularly covered with mostly smaller setae. In the male, sternite VIII is arcuately emarginate (fig. 18, *g*) and bears a pair of prominent erect setae at middle; sternite IX is a small oval internal sclerite with an anteriorly directed spur at middle (fig. 18, *g*). In the female, sternite VIII is not emarginate and IX is a greatly reduced, transverse sclerite (detectable only at high magnifications) that has a pair of minute setae at middle; sternites VII and VIII each have at middle a pair of long, prominent, erect setae that are more widely separated than in the male.

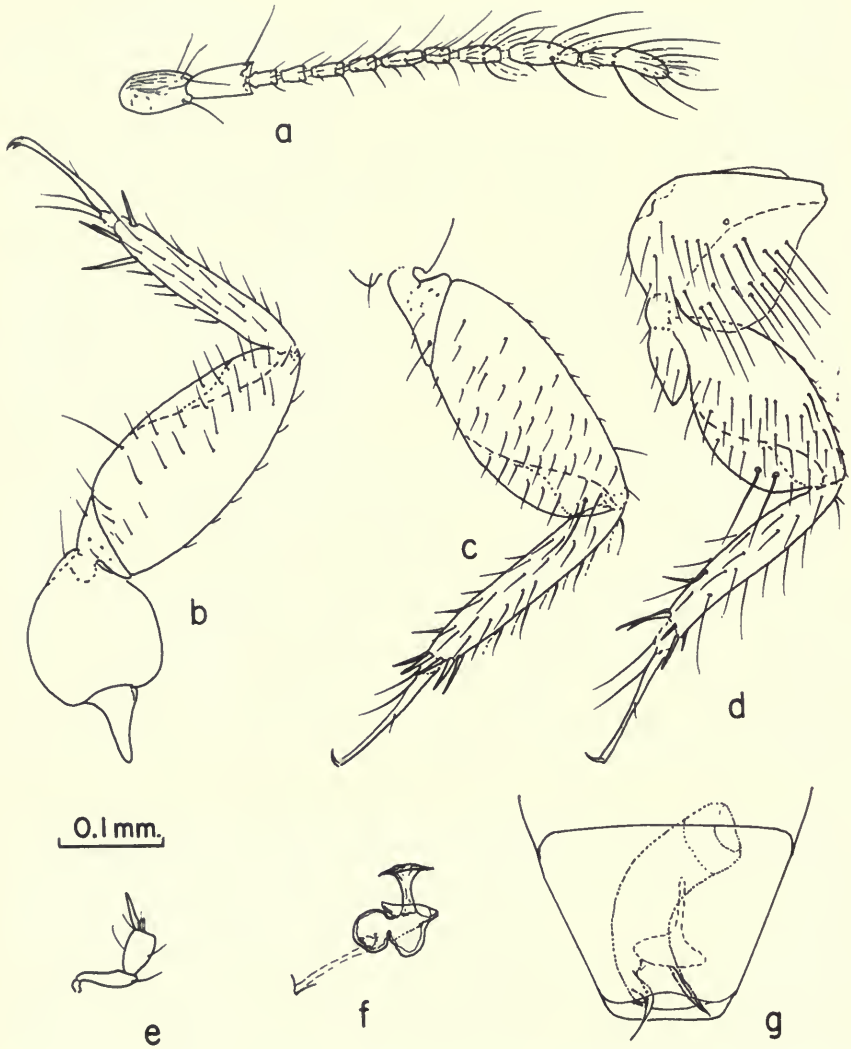

FIG. 18. *Xenopteryx setosus*, new gen. and sp. *a*, Antenna (female). *b*, Anterior left leg (male), posterior face. *c*, Middle left leg (male), anterior face. *d*, Posterior left leg (male), anterior face. Finer setae of all legs only approximately indicated. *e*, Maxillary palpus. *f*, Spermatheca. *g*, Aedeagus and sternites VII (part), VIII, and the small, internal IX (dotted lines). The internal sac (armature extruded in the preparation) not shown.

Spermatheca as in figure 18, *f*.

Aedeagus as in figure 18, *g* (the extruded internal sac and its armature not shown).

Measurements: Length (in extended specimens in alcohol) about 1.4 mm.; width about 0.7 mm.

Holotype.—A female, mounted on a microscope slide, from Cachuela Esperanza, Beni Province, Bolivia; collected March, 1922, by William M. Mann, on the Mulford Biological Exploration to the Amazon Basin, 1921–1922. In the collection of the United States National Museum (USNM Cat. No. 65939). Host: *Speculitermes* n. sp. close to *arboreus* Emerson (identified by A. E. Emerson).

Allotype.—A male, on microscope slide, same data as holotype.

Paratypes.—Four females, 3 males on microscope slides, and 21 unsexed specimens (13 mounted dry and 8 in alcohol), same data as holotype. Ten paratypes deposited in collection of Chicago Natural History Museum.

Other specimens studied.—Several fragmentary individuals, same data as the holotype, not designated as paratypes.

Remarks.—The very long, prominent erect setae of the abdomen make *Xenopteryx setosus* unique among the known Ptiliidae.

The host termites are listed by Snyder (1926, p. 58) as from an earth nest in the crotch of a tree near the ground. An unidentified species of *Speculitermes* has been recorded as the host of another feather-wing beetle (*Urotriainus bidentatus* Dybas, 1955) in Brazil but Dr. Emerson (in litt.) states that the genus *Speculitermes* as now constituted seems to be composite. He states that *Speculitermes arboreus* Emerson and the closely allied species that is the host of *Xenopteryx setosus* ultimately may be taken out of *Speculitermes* and given status separate from that of their New World and Oriental allies. The genus lacks a soldier caste in the New World, and collections of workers only, without the associated reproductive caste, cannot be named, according to Dr. Emerson.

Cachuela Esperanza, the type locality, is a small village on the banks of the Beni River (see Gyldenstolpe, 1945, for a detailed map and for general information on the area).

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